



Central Valley Clean Water Association

Representing Over Fifty Wastewater Agencies

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March 2, 2015

Via Electronic Mail Only

James Marshall, P.E.
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California Water Quality Control Board
Central Valley Region
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SUBJECT: Tentative Waste Discharge Requirements for the City of Manteca and
Dutra Farms, Inc. Wastewater Control Facility, San Joaquin County

Dear Mr. Marshall:

The Central Valley Clean Water Association (CVCWA) appreciates the opportunity to comment on the tentative Waste Discharge Requirements Order No. R5-2015-XXXX for City of Manteca and Dutra Farms, Inc., Wastewater Control Facility (Tentative Order). CVCWA is a non-profit association of public agencies located within the Central Valley region that provide wastewater collection, treatment, and water recycling services to millions of Central Valley residents and businesses. We approach these matters with the perspective of balancing environmental and economic interests consistent with state and federal law. In this letter, we provide the following comments regarding interim limits for ammonia, land discharge specifications, groundwater limitations, and request revisions as indicated herein.

I. Interim Effluent Limitations for Ammonia

The Tentative Order includes new, more stringent ammonia limits based on U.S. EPA's updated 2013 National Ambient Water Quality Criteria for ammonia, and based on a finding of mussels present due to the Nature Conservancy's August 2010 report.¹ The City of Manteca's (City) effluent is unable to immediately comply with the new, more stringent water quality-based effluent limitations. Accordingly, the Tentative Order properly includes a compliance schedule for ammonia.² However, the Tentative Order does not include an interim effluent limitation for ammonia. CVCWA understands that the City has requested inclusion of an interim limit for ammonia, and CVCWA recommends that the Tentative Order be revised to include an interim limit for ammonia.

II. Land Discharge Specifications and Recycling Specifications

The Tentative Order includes land discharge specifications and recycling specifications.³ However, based on the facts described in the Tentative Order, it appears that the City is applying recycled water at agronomic rates and thus should be subject to water recycling specifications and not land discharge specifications. Further, the land discharge specifications are more stringent than necessary with respect to the application of recycled water, and are inconsistent with both the State Water Resources Control Board's (State Board) General Waste Discharge Requirements for Recycled Water Use (General Order) as well as other orders of the Central Valley Regional Water Quality Control Board (Central Valley Water Board).

First, with respect to the land discharge specifications, the Tentative Order clearly acknowledges that the City is applying recycled water to City owned agricultural fields and Dutra Farms, Inc.⁴ Thus, CVCWA is uncertain as to why certain requirements fall under the heading of "land discharge specifications," while other requirements fall under the heading "recycled water specifications." Regardless, many of the provisions included under the "land discharge specifications" heading are inappropriate as applied to the application of recycled water.

CVCWA is concerned with Provisions IV.B.2, IV.B.3, IV.B.4, IV.B.5, and the wording in IV.B.6. The Tentative Order includes a fairly standard provision that requires application of recycled water to not exceed agronomic rates.⁵ This provision is similar to Provision B.3 of the

¹ Tentative Order, pp. F-46 - F-47.

² Tentative Order, pp. 25-26.

³ Tentative Order, pp. 6-9.

⁴ Tentative Order, p. 6.

⁵ Tentative Order, p. 6, Provision IV.B.1, p. 6 ["The volume of recycled water applied to the use areas shall not exceed agronomic rates based on vegetation growth, pre-discharge soil moisture conditions, and weather conditions. Hydraulic loading of recycled water and supplemental irrigation water (if any) shall be at agronomic rates to: a. Maximize crop nutrient uptake; b. Maximize breakdown of organic waste constituents in the root zone; and c. Minimize the percolation of waste constituents below the root zone."].

State Board's General Order, which provides "[a]pplication of recycled water to the use area shall be at an agronomic rate, and shall consider soil, climate, and plant demand,"⁶ and is similar to Provision F.6 in Waste Discharge Requirements and Master Recycling Permit for the City of Lathrop (Lathrop WDR).⁷ CVCWA does not dispute the appropriateness of having a provision that limits application of recycled water to an agronomic rate. Of concern to CVCWA are the additional provisions beyond Provision B.1 in the Tentative Order.

With respect to Provision IV.B.2, the Tentative Order would include a requirement that would limit total nitrogen mass loading to the land application areas, and would require the City to calculate such loading using an equation contained in the Tentative Order.⁸ This provision as it applies to recycled water applications exceeds requirements contained in the General Order and the Lathrop WDR. Further, this would require compliance with a strict equation that is based on published nitrogen uptake rates and fails to realize that nitrogen uptake rates vary based on weather, soil conditions, and many other factors. Application of nitrogen is not an absolute science, and thus it is improper to require compliance with a loading rate based on the formula included. Rather, the Central Valley Water Board should require application of recycled water to be at an agronomic rate, considering nutrient levels in the recycled water and nutrient demand by plants. Accordingly, CVCWA recommends that Provision IV.B.2 be deleted.

Similarly, CVCWA recommends deletion of Provision IV.B.3. The Tentative Order would require compliance with a BOD₅ loading rate for the application of recycled water that is applied at agronomic rates.⁹ The Fact Sheet clearly notes that total monthly loading rates for BOD₅ are low, and that loadings are at agronomic rates.¹⁰ Further, the inclusion of such loading rates as a permit requirement for the application of recycled water is not a standard provision, and is inconsistent with the State Board's General Order and the Lathrop WDR. However, maintaining the requirement will subject the City to additional, extensive monitoring and reporting to determine strict compliance with the loading rate rather than certifying that applications occurred at agronomic rates.

Next, the Tentative Order includes a discharge specification for total dissolved solids. As written, this effluent limit for total dissolved solids (TDS) applies to recycled water immediately before application to the use areas. In addition to this requirement, the Tentative Order also includes groundwater limitations for both electrical conductivity and TDS, as well as an effluent limit for electrical conductivity.¹¹ Considering the low level of TDS in the effluent, and the fact that the Tentative Order also includes groundwater limitations with respect to TDS, CVCWA finds

⁶ General Order, p. 15.

⁷ Lathrop WDR, p. 39.

⁸ Tentative Order, p. 7.

⁹ Tentative Order, p. 7.

¹⁰ Tentative Order, p. F-71.

¹¹ Tentative Order, pp. 6, 12.

the TDS limit here to be unnecessary and inappropriate. Accordingly, CVCWA recommends deletion of Provision IV.B.4.

With respect to Provision IV.B.5, CVCWA recommends deletion of the reference to “designated” waste. Under the Water Code, designated waste is that which could be released in concentrations that exceed applicable water quality objectives. The Tentative Order includes groundwater limitations to protect discharges of waste from the facility, including from the land use areas that would cause groundwater to exceed water quality objectives. Groundwater limitations recognize that some constituents may be remediated through the soil profile, and thus, it is more appropriate to determine their impact on the groundwater rather than determining if recycled water exceeds water quality objectives at the time of application. By prohibiting the discharge of designated waste, the Tentative Order is essentially prohibiting the application of recycled water if any water quality objective is exceeded even though groundwater may not be impacted. Accordingly, the reference to designated waste should be removed.

Provision IV.B.6 states that “[w]astewater may not be used for irrigation purposes during periods of significant precipitation, and for at least 24 hours after cessation of significant precipitation, or when soils are saturated. Significant rainfall is defined as 0.25 inches during a 24-hr period.”¹² To be consistent with the Lathrop WDR, CVCWA recommends that this provision be revised to state as follows: “Discharge to Use Areas shall not be performed during rainfall or when the ground is saturated.”

III. Groundwater Limitations

As indicated previously, the Tentative Order includes groundwater limitations for both electrical conductivity and TDS. Considering that both are measurements of salinity, CVCWA contends that it is not necessary, or appropriate, to include groundwater limitations for both measurements. Thus, one of the limitations should be removed from Table 6. Further, CVCWA understands that the City has completed its site-specific study and thus it is appropriate for the groundwater limitation to be set based on the City’s study, and not defer to the already completed study.

Further, the Tentative Order includes a specific groundwater limitation for ammonia based on an interpretation of the narrative taste and odor objective. Thus, the limitation of 1.5 mg/L is not an adopted objective and should be deleted from Table 6. Rather, and taking the Lathrop WDR as an example, a more appropriate groundwater limit would be that the release of waste constituents shall not cause groundwater to “contain taste or odor-producing

¹² Tentative Order, p. 7.

James Marshall, P.E.

Re: CVCWA Comments on the Tentative Waste Discharge Requirements for
City of Manteca and Dutra Farms, Inc. Wastewater Control Facility
March 2, 2015

Page 5 of 5

constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses.”¹³

We appreciate your consideration of these comments. If you have any questions or if CVCWA can be of further assistance, please contact me at (530) 268-1338 or eoofficer@cvcwa.org.

Sincerely,



Debbie Webster
Executive Officer

cc (via email): Pamela Creedon, Central Valley Regional Water Quality Control Board
(pcreedon@waterboards.ca.gov)

¹³ See, e.g., Lathrop WDR, p. 38.